

ABSTRACT

A substrate (300) for a package of high frequency semiconductor devices comprising a planar insulating substrate having a plurality of parallel, planar metal layers (301a, 301b, etc.) embedded in the insulator. The substrate further has at least one pair of parallel, metal-filled vias (302 and 303) traversing the substrate; the vias have a diameter and a distance from each other of at least this diameter. The metal in each via has a sheet-like extension (321a, 321b, etc.) in each of selected planes of said metal layers, resulting in an increased via-to-via capacitance so that the reflection of a high frequency signal is less than 10 %.